

Generate Collection

Print

L8: Entry 14 of 31

File: JPAB

Dec 9, 1992

PUB-NO: JP404356156A  
DOCUMENT-IDENTIFIER: JP 04356156 A  
TITLE: PRODUCTION OF PROCESSED SHELLFISH

PUBN-DATE: December 9, 1992

## INVENTOR-INFORMATION:

NAME

COUNTRY

MIURA, YASUSHI

HATSUKADE, IKUO

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

AOHATA KK

APPL-NO: JP03127839

APPL-DATE: May 30, 1991

US-CL-CURRENT: 452/12INT-CL (IPC): A22C 29/04

## ABSTRACT:

PURPOSE: To produce a processed shellfish having its contents in a substantially raw state by simple operations, by applying a high pressure to a raw shellfish with a shell and subsequently opening the shell.

CONSTITUTION: A raw shellfish with a shell such as an oyster, calm or short-necked calm and sea water are sealed with a plastic container and subsequently subjected to a high pressure of 1-44 atmospheres. The shell of the treated shellfish is easily opened to provide the objective processed shellfish.

COPYRIGHT: (C)1992,JPO&amp;Japio

## **Specifications**

Manufacturing technique for processed shellfish

## **Scope of Patent Application**

A manufacturing technique of a treated shellfish, which has as its distinctive feature the application of high pressure to an unshucked raw shellfish.

## **Detailed Explanation of the Invention**

[ 0001]

### **Field of Industrial Use**

The invention concerns a new technique of manufacturing processed shellfish.

[0002]

### **Existing Technology**

We have known for sometime the difficulty that is involved in the opening of the shell of a raw unshucked shellfish, for example an oyster.

[0003]

### **What Problems the Invention Resolves**

In normal processing a significant amount of technique is necessary, because not only does the shucking of a raw unshucked shellfish require a significant amount of force, but if the person shucking the shellfish is unskilled, he will break the shell.

Because of this, it would be of great benefit, if the shellfish could be opened easily and effectively by hand.

Therefore, it is our intention to present a method to produce a processed shellfish, with which the shell of the raw shellfish could easily be opened by hand.

[0004]

### **The Means with which We Resolve the Problem**

Through diligent research, the inventors discovered that they could accomplish the goal, stated above, through the method of applying high pressure.

The invention provides a method of processing shellfish, which has the distinctive feature of applying high pressure to a raw unshucked shellfish.

[0005]

We will explain the invention in detail below.

In this invention, an unshucked raw shellfish refers to a living shellfish in its shell. It is not limited to any one type of shellfish, but we can give as representative examples, the oyster, clam, and short-necked clam.

[0006]

According to the method of this invention, you apply high pressure to these types of raw unshucked shellfish. "High pressure" is normally defined as pressure above 1000 times atmospheric pressure. In practice, it suffices to use 1000 to 4000 unit of pressure (one unit equals about  $1\text{kg/cm}^2$ ). Also, "to apply pressure" means to hold that pressure at an established period of time. If 2000 units of pressure, then 3 to 10 minutes, If 3000, .5 to 5 minutes, and 4000 units .5 to 5 minutes. If the time that the pressure is applied is short, it is difficult to achieve the purpose of the invention. Moreover, if it is long, not only does it become uneconomical, compared to the time that would be required to shuck it by hand, but also there is a tendency for the quality of the albumin of the shellfish to change.

[0007]

There is no limitation to the manner in which one may apply pressure, but placing the raw unshucked shellfish into a plastic container with seawater and after sealing it, placing the container in a high-pressure machine (such as the Mitsubishi MCT-150) and applying pressure is effective.

[0008]

From the method of the invention described above, the processed shellfish is easily opened by hand, and therefore, compared to existing methods of shucking shellfish, it has a high level of productivity.

[0009]

**Effects**

When applying high pressure to the unshucked raw oyster, the adductor muscle is partially affected and has difficulty closing the oyster, and it therefore becomes easy to open the shell by hand.

[0010]

### Example of the Invention in Practice

We will explain in greater detail the invention in examples of it in use and in examples of tests.

#### Example 1

We placed two unshucked raw oysters in a plastic bag and poured in an equal volume of seawater, and after sealing the bag, we placed it in a Mitsubishi high-pressure machine MCT-150 and applied 3000 units of pressure for three minutes and produced the processed oysters of this invention.

#### Example 2

We placed 4 unshucked raw clams in a plastic bag and poured in an equal volume of sea water, and after sealing the bag, we placed it in the Mitsubishi high pressure machine mentioned above and applied 4000 units of pressure for two minutes and produced the processed clams of this invention.

[0012]

#### Test Example

We compared the processed oysters from Example 1 with oysters that had not been treated with pressure and produced the following results:

	The Processed Oyster	The Untreated Oyster
Ease of Opening By Hand	O	X

Note 1: O means that the shell was easily opened by hand

X means that the shell was not easily opened by hand

Note 2: When we opened the shell of the processed oyster, there was not change to the physical quality of the raw oyster.

[0013]

### **Effect of the Invention**

When one uses the method of the invention, it becomes very easy to open the shell of the shellfish, and the method produced a processed shellfish which was still raw.

Generate Collection

Print

L3: Entry 24 of 57

File: JPAB

Mar 19, 1985

PUB-NO: JP360049770A  
DOCUMENT-IDENTIFIER: JP 60049770 A  
TITLE: PACKED PRODUCT OF UNSHELLED SHELLFISH

PUBN-DATE: March 19, 1985

## INVENTOR-INFORMATION:

NAME

COUNTRY

OZAKI, SHIGEO

INOUE, TORU

GOTO, HIDEO

## ASSIGNEE-INFORMATION:

NAME

COUNTRY

TOPPAN PRINTING CO LTD

APPL-NO: JP58157436

APPL-DATE: August 29, 1983

US-CL-CURRENT: 426/129

INT-CL (IPC): A23L 1/33

## ABSTRACT:

PURPOSE: To prevent the collapse of the meat of shellfish, and to obtain packaged unshelled shellfish which can be transported and stored safely, by binding an unshelled shellfish subjected to a specific pretreatment with a heat-resistant band, and sealing in a plastic packaging bag, etc.

CONSTITUTION: The unshelled shellfish A subjected to a specific pretreatment such as removal of sand, washing, etc. is bound with a heat-resistant band 1 having a strength sufficient to prevent the opening of the shell. The bound shellfish is sealed in a heat-resistant plastic packageing bag 3 or packaging container 4 having high physical strength to obtain the objective packed product. If necessary, the shellfish is sterilized under high temperature and pressure after sealing.

COPYRIGHT: (C)1985,JPO&amp;Japio

band  
&  
bag